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Original Lectures.

LECTURES ON NEW REMEDIES AND THEIR THERAPEUTICAL APPLICATIONS.

DELIVERED AT THE
NEW YORK MEDICAL COLLEGE AND CHARITY HOSPITAL.
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LECTURE VI.—PART I.

RESINA PODOPHYLLI (PODOPHYLLIN).

GENTLEMEN:—The subject of which we shall now treat is the resinous and active medicinal principle of the root of the Podophyllum Peltatum.

The plant grows wild in every State of the Union, and is known by the names of mandrake, wild lemon, may apple. It is generally found upon the borders of the woods, growing in the damp and leafy soils, where the roots can spread freely in a lateral direction. In the northern states the plant grows eight or ten inches high, but in the southern states it is larger, and may frequently be seen twelve to sixteen inches in height. The root is perennial, creeping, and frequently many feet in length. Sometimes a patch of plants of several yards in diameter will be found, the whole of the roots connected together. The root is about a quarter of an inch in diameter, jointed, and of a light brown color. The plant flowers in May and June, and ripens its fruit about September. The fruit is of a light lemon color, about the size of a hen's egg, and contains a thick mucilaginous pulp, which is of a pleasant sub-acid, sweetish taste, and is eagerly sought for by the country children. The green leaves are said to be narcotic, but I much doubt whether they contain any narcotic properties. In the green state the plant contains a volatile substance which is entirely dissipated on drying, and what little knowledge I have gained of its properties in this state would lead me to class it as an acrid emetic and cathartic. The leaves and stalk when dry are inert, and the whole of the medicinal activity resides in the rhizoma. A full description of its botanical characteristics may be found in Willd Sp. Plant. ii. 1141; Barton Med. Bot. ii. 9; Carson's Illust. Med. Bot.; U. S. Dispens., p. 605.

The podophyllum root was a favorite cathartic remedy with the Indians before the occupation of this country by the Europeans. It was usually used by them in decoction, and aromatic roots and barks were added to it to avoid its griping properties. The root has been used by the colonists ever since their settlement in this country; it has been used in decoction, in powder, in tincture and extract, but its true properties seem to have been little understood until the isolation of its active or resinous principle.

Numerous monographs have, from time to time, been written on the plant, and much argument has taken place, and much feeling has been displayed as to who first discovered and recommended the resinous principle. Upon this subject we will not touch, for as our time is brief it can be better occupied in studying its chemical composition and therapeutical applications.

The name applied to the resin has hitherto been podophyllin, but it is understood that in the forthcoming new edition of the U. S. Pharmacopœia it will be known by the name of resina podophylli; we will, therefore, treat of it under this more correct name; more correct, because it designates its composition.

Preparation of the Resin.—Most of the resin now in the market is prepared by manufacturers upon the large scale, and is in the hands of a few individuals. Its preparation in the large way differs from that adopted by the analyst or pharmacist.

When prepared in the large way the root is powdered, moistened with alcohol, and packed in a displacement apparatus, and exhausted with boiling alcohol. The strong tincture thus obtained is distilled to a proper density, and allowed to flow in a small stream into six or seven times its quantity of cold water, to which has previously been added about one per cent. of hydrochloric acid. It is kept continually stirred until all the alcoholic tincture is thoroughly mixed with the water, and it is important, for ready separation of the resin, that the evaporation has been conducted to just the proper point, for if too much alcohol remains a large quantity of water is required, whereas, if the evaporation is too concentrated, it is apt to fall into the water in lumpy masses which do not allow the alcohol to separate freely from them. After being allowed to stand for some time to separate, the whole is thrown upon flat stretched filters, and the whole of the liquid allowed to drain off. When sufficiently drained and washed it is thrown upon trays and carried to the drying-room, and left there until it is dry enough to powder. A considerable quantity is generally collected before it is powdered, as it is an operation much dreaded by the workmen, as the powder is excessively irritating to the eyes, nose, mouth, respiratory organs, and even to the skin. Even with all the improvements in the apparatus for powdering and sifting the workmen are frequently sick for some days after attending to the powdering of this resin.

When made by the pharmacist in the small way, or by the analyst, the finely powdered root is moistened with alcohol, and packed in a displacement funnel, and a disc of filtering paper placed over the surface. Alcohol is now added, and it is generally allowed to stand twenty-four or more hours before it is allowed to filter off. As soon as filtration commences more alcohol is added, until it is sufficiently exhausted; generally about two pints of alcohol will be found sufficient to exhaust a pound of the root, but as upon the small scale a small quantity of resin can better be lost than a large quantity of alcohol it may be at any time known when to stop the addition of the alcohol; for as the tincture passes through the displacement funnel it may be dropped into slightly acidulated water, and the amount of resin in suspension may be thus ascertained. In evaporating this tincture it is well not to employ too great a heat, otherwise the product will be dark colored; the evaporating dish should therefore not be buried too deeply in the sand bath. As evaporation progresses the resinous substance which collects upon the edge of the dish must be rubbed off, and kept mixed with the fluid, and evaporation must not be allowed to proceed too far. The weight of the evaporating dish had better be known, so that uniformity can be nearly arrived at; and if the amount of alcohol above mentioned has been added to a pound of the root, about four oz. by weight of the evaporated tincture may be considered concentrated enough to arrest the process. This, while still hot, is poured in a very fine stream into twenty oz. of ice-cold water, which is constantly stirred with a stout glass rod, and when the whole is added it is set aside for twenty-four hours. It is then thrown on a linen filter, and washed with ice-water, allowed to dry as much as possible, and then rolled into sticks, in which form it may be dried and powdered as wanted.

Mr. Edward Parrish, who has written a very able article on this resin, and which has just appeared in the *American Journal of Pharmacy*, says, that he has experienced some difficulty in the separation of the precipitate, and recommends that the water in which it is thrown should be brought just below the boiling point when the resin fuses and collects on the bottom and sides of the jar. While in this state, he says that it may be kneaded and pulled out, so as to wash it thoroughly and make it lighter in color. He prefers to leave it in lumps or pieces, as it is in this state more characteristic, and less liable to adulteration.

The precipitation takes place more perfectly and readily if one or one and a half per cent. of hydrochloric acid is added to the water, or if a small quantity of alum is dis-

solved in the water before the addition of the concentrated tincture; but I have used clear water, because with it there is a small amount of another principle to be separated. After the precipitation has taken place, if to the filtered water a small amount of acetate of lead is added, a precipitation takes place of a light brown powder, which may be washed in a small quantity of water acidulated with acetic acid, and with water, and dried: this has been called the neutral principle. Of its therapeutic action we will speak hereafter.

The resin as obtained by the processes above mentioned is of a yellowish brown color, nearly all soluble in alcohol; about 75 per cent. of it soluble in ether; and wholly soluble in a hot solution of caustic alkali; insoluble in cold solution of the carbonate and bi-carbonate of soda and potash. With the caustic alkalies it forms a soap like other resins, but it may be easily separated from its solvent by the addition of an acid. It is decomposed by sulphuric acid, and by strong nitric acid also, with effervescence, forming a reddish iodine colored liquid. It is in the books said to be entirely soluble in alcohol; but in endeavoring to purify it, and make it of a lighter color by repeated solutions in alcohol and precipitations in water, I have found there is at each solution a portion of resin entirely insoluble in cold alcohol, and by repeated precipitations the whole may thus gradually be rendered insoluble in alcohol. What the exact chemical change is which takes place by the precipitation I will leave to abler chemists to determine, but I suppose a portion of it unites with the water as a base, forming a hydrate. The same results are noticed with the resinous principles of many other of the indigenous remedies which I have experimented upon.

The amount of the resin soluble in ether varies in different samples, ranging from 50 to 80 per cent.; and from some examinations made by Mr. Tilden, he states that there is a great difference in the solubility of the resin in ether, in podophyllin made from roots collected in the spring and in the autumn. Thus in the resin obtained from spring roots fifty-four parts in one hundred were soluble in ether, while in that obtained from autumn roots but forty parts in one hundred were soluble in ether.

The ether used in these experiments must, I fear, have been impure, for the amounts of the resin soluble in that menstruum are very much smaller than usually obtained. From some experiments made by Mr. Wm. Parrish, eighty-five parts of the resin made by him were soluble in ether, and on an average I find it will amount to seventy-five parts. The resin soluble in ether is far more active than that insoluble in that fluid.

There is a difference in the amount of the resin obtained from the root at different periods of its growth. That gathered in June was found by Mr. Parrish to contain more resin than that gathered in September. The amount of resin obtained by large manufacturers will vary from three to five per cent.

During 1860 and 1861, M. Civiale has operated in 120 cases of stone, in 115 men and 5 women. 88 were cases of lithotrity; of which 3 died and 79 were cured. 17 patients were lithotomized; of whom 8 were cured, 2 recovered with fistulæ, and 7 died. 15 cases were not operated upon; of these, 6 died, and 9 remained alive.—*Brit. Med. Jour.*

Mrs. Algernon Coolidge of Boston, William O. Johnson of Cambridge, William D. Lamb of Lawrence, and Dr. B. B. Breed of Lynn, have left for Washington, whither they had been summoned, in anticipation of the great addition to the labors of the Surgical Staff likely, within a few days, to grow out of the movements in Virginia.—*Boston Journal.*

St. Vincent's Hospital.—During the year 1861, 665 patients have been treated in this institution. Of these 279 were cured, 207 relieved, 65 unrelieved, and 114 died.

Original Communications.

INVERSION OF THE UTERUS,

OF THIRTEEN YEARS' STANDING,

WITH A NOVEL METHOD OF REDUCTION.

[Being a Paper read before the N. Y. Academy of Medicine, March 5, 1862.]

By E. NOEGGERATH, M.D.,

NEW YORK.

The object of this paper on inversion of the uterus is twofold. First, to report the successful performance of an operation for inversion, in an instance where displacement had existed for a longer time than in any of the cases reported in which an operation had been attempted. And again, the surgical manœuvre adopted differed from those formerly resorted to, and claims the preference over other methods hitherto employed. For which latter assertion I find the best proof in the fact, that two operations had been previously attempted in France without affecting a change in the relative positions of the dislocated sexual organs, in the case to which I call your attention. The history of the case is briefly stated as follows:

Madame Victorine Reauté, born in Bourbon, arrondissement Dunquirque, department du Nord, France, now a resident of this city, is 38 years old, of dark complexion, and although very much reduced by a sickness of long standing, endowed with a good deal of physical energy. Born of healthy parents, she enjoyed a very satisfactory state of health up to the time of her marriage, which occurred when she was twenty-two and a half years old. She had her first menstrual discharge at the age of fifteen, which, up to the time of her first gestation, had continued as normal as could be desired. She was married on the 16th of July, 1846, at the city of St. Omère, department de Pac de Calais. She soon afterwards became pregnant, and was taken with the first labor pains during the night of the 16th of April, 1847. The pains went on, gradually although very slightly increasing until nine o'clock A.M. of the following day, when they suddenly and unexpectedly seized her with such violence that the child's head began to enter the os externum, while Mrs. R. was still walking the floor. All she had time to do was to throw herself in the lap of her husband, in which posture she gave birth to the baby, which is alive at the present day. The husband was seated on a chair, while the doctor, kneeling in front of her, received the child in his hands. No hæmorrhage followed this sudden evacuation of the uterus, but when there were no signs of detachment of the placenta fifteen minutes afterwards, the doctor requested the patient to bear down in order to promote its discharge. Immediately after this order was given, and before the patient had fairly obeyed it, and while the doctor had passed his hand inside of her, she felt something unusual take place in her abdomen, which made her faint away instantly. In this state of unconsciousness the woman remained from nine o'clock A.M. till twelve at noon. She was then able to speak a few words, but soon relapsed into the same condition, and was considered to be dying by all around her. The patient recollects having been flooded all this time, and most profusely in the first three hours, after which time the violence of the hæmorrhage was somewhat checked by a lemon, which the doctor had introduced into the vagina.

On the following day, the patient found herself in a feverish and very reduced state, with symptoms of inflammation of the bowels. All that she knows of the medical treatment is the application of mercurial ointment. For two months her life hung by a thread, and all this time she was kept in a position, the feet elevated, and the head depressed, while blood was oozing constantly from her womb. Several physicians were called in, and although they were well aware of the existing inversion of the uterus, none of them dared to attempt a replacement, on account of the exhaustion of the patient.

It was not until within a year after the occurrence of the accident, that her attendant tried to reduce the inverted uterus. Drs. Evrard, Bertrand, and Reveil, performed two different and distinct operations on her in 1848. The instruments used on the first occasion, were a four-bladed speculum, and a rectum-bougie. The second attempt was made by dilating the vagina with a spatula and manipulation with the hand passed into the same; no chloroform was used. The result was none as to the position of the displaced organ, while the hæmorrhage was worse than before, so that she had to remain in bed for three weeks before she could regain her former strength, and, when she had begun to walk around, a new complaint was added. The womb, which had hitherto remained inside, came down so as to show outside the parts; and although it could be easily pushed upwards, whenever it had come down, her ailments, and more especially the hæmorrhage, were considerably increased by this occurrence. The prolapse, however, gradually disappeared, and she has never been troubled with it for the last eight years. After those unsuccessful attempts at reduction, the treatment of her case was restricted to the use of astringent injections, with a view of controlling the flooding. In 1851, Mrs. R. left her country for New York.. She has had ever since a considerable flow of blood for at least thee weeks in each month, which then subsided for the remainder of the period, and then gave place to a whitish serous discharge. For the last three months, she was treated by a physician of considerable repute in this city, who applied the lunar caustic to the bleeding surface twice a week, during which application the flooding became rather worse.

On the 22d of February, 1860, I was called upon by the husband of the patient to see her on account of a severe attack of headache, from which she had been suffering occasionally for many years. While inquiring into the nature of the complaint, Mrs. R. made a casual remark of her being troubled with hæmorrhage from the womb, intimating at the same time that she had no desire to have my attention directed to the latter, because, after all she had gone through, she thought her complaint past all hopes of recovery. This latter remark arrested my attention, and I began to examine more closely into the nature of that hæmorrhage. As both Mr. and Mrs. R. were very intelligent people, and even at the present day perfectly au fait with the particulars of the case, I soon came to the conviction that the cause of the hæmorrhage could be nothing short of an inversion of the womb. After having brought to bear all possible means of persuasion, I was at last permitted to perform a vaginal examination.

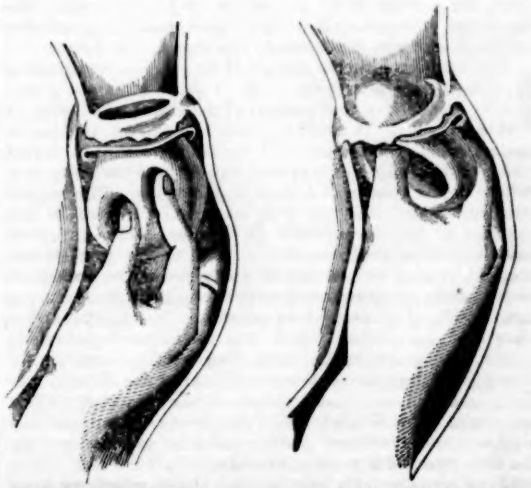
This was done on Saturday, the 25th of February. The patient having been placed in a convenient position, I passed my forefinger into the vagina, which was unusually distended, and met there with a tumor, the lowest point of which was situated about one and a quarter inches above the vulva. It had a very soft feel, was somewhat compressible, of a pear-like shape, and about three inches long. Several parts of it, *when slightly scratched with the nail of the finger, gave rise to a sharp pain*, which was experienced by the patient in the left iliac region close by the anterior iliac spine. The vaginal neck was about half an inch long, and the os uteri open and pierced by the upper portion of the tumor.

On passing the finger around the upper extremity of the mass, between the latter and the inner margin of the lips of the cervix, the constriction of the os uteri was found to be so perfect that it could not be ascertained in what portion of the uterine canal or to what extent the pedicle was inserted. In order to decide this very important question, the womb-sound was now introduced into the vaginal neck, and after a most careful examination, during which the instrument was made to traverse around the entire surface of the cervical segment of the tumor, I became convinced that the sound could nowhere be introduced further than half an inch. After withdrawing the probe, I once more passed my finger over the exterior surface of the tumor, and then I could distinctly feel two small circular grooves at the base of the tumor. They were of the size of a pin's head, one located on the right, one on the left side, and about one inch and a half apart from each other. I now passed a male catheter into the bladder, and the right fore-finger into the rectum, and after turning the instrument so as to have its concavity look downwards, my finger met the point of the catheter, and so distinctly could the same be felt, that the absence of the body of the uterus in the abdominal cavity became at once evident. The physical signs thus gathered, taken in connexion with the data I derived from the statement of the patient, led to the diagnosis of chronic inversion of the uterus.

I at once proposed to have another operation performed. The patient yielded reluctantly, recollecting that two unsuccessful attempts had been made by eminent French physicians. She thus considered her disease beyond the reach of surgical skill, the more so, because more than twelve years had elapsed since the last operation had been performed. The probability, however, that a third operation would be followed by a better success than the two former ones, could not be denied. I had at my disposition not only improved methods for the surgical treatment of inversion, but, what is of more importance, the use of anæsthetics.

On Sunday the 4th of March, 1860, in the presence of Drs. Jacobi, Krackowizer, Kammerer, and Schnetter, the patient was placed in the position for lithotomy, and brought under the influence of chloroform. The method which I intended to use for the reduction of the uterus was that proposed by Prof. White, of Buffalo.

The right hand was introduced into the vagina, and the entire body and neck of the uterus was firmly grasped. At the same time I carried up a large rectum bougie, and also received it into my palm, holding it firmly in contact with the fundus of the uterus. Continuous gentle pressure was made upon the external extremity of the bougie with the left hand, whilst the right hand pressed the uterine tumor. In this way, the force was directed in the axis of the pelvic cavity, putting the vagina completely on the stretch. After persevering in this effort for some time, alternately slackening and increasing the force, and changing the position of



First Step of the Operation. Second Step of the Operation.

the fingers occasionally, I found that the tumor had not in the least altered its shape; and the tissue of the fundus, which was very soft and friable, began to give way at the point where the bougie pressed against it. I therefore attempted compression, and replacement without the aid of the instrument. This manœuvre, however, proved just as unavailing as the first trial. Almost discouraged by these fruitless efforts, and feeling that the strength of my right

arm was nearly exhausted, I was about to desist from any further attempts, when the idea struck me to proceed on a different plan of manipulation. I at once changed the position of my hand in such a manner, that the fore and middle fingers grasped the right section of the tumor; while the thumb was implanted on the left side at a point where the upper two-thirds of its length met the lower one. In this manner, a pressure was exerted by the thumb on the lateral border of the body of the womb, which pressure took an upward as well as a lateral direction, and resulted in the formation of an oblong groove, the long diameter of which pointed below towards the left horn of the uterine fundus, and upwards to the spot where the inverted and the non-inverted portion met on the left side. The object of this first step of the operation was to completely double up the uterine cavity, so that the right—now inner—wall touched the left one. After this was completed, the dimpled portion was carried upwards by the thumb, and in doing so it could be observed that the right side of the upper section of the inverted cervix passed first of all through and beyond the os uteri. During the progress of this manipulation, the right lower section of the uterine body followed, and re-assumed its normal position, while the opposite part of the fundus continued to remain outside the os, only much shortened and doubled up. As soon, however, as half of the tumor had disappeared inside the abdominal cavity, the intra-vaginal section slipped suddenly out of my fingers, and the operation was completed. The entire manœuvre was performed in a shorter time than it takes me to give its description. The entrance of the last portion of the uterus was so complete, that I deemed it unnecessary to introduce a bougie into the restored uterine cavity, with a view of preventing re-inversion.

After the patient had recovered her senses, she felt very weak and nauseated, in which condition she continued for the next twenty-four hours. Owing to a slight feverish reaction, she was not able to leave her bed for a full week. The operation checked the hæmorrhage at once, and in its place she remarked a moderate discharge of a thin serous liquid. Three weeks after the operation, the menses reappeared, and lasted seven days, the loss of blood being considerably less severe than it had been for many years back. A year afterwards, when I saw Mrs. Reauté for the last time, the position of the uterus was unchanged; pain, hæmorrhage, leucorrhœa had disappeared, and the appearance of the patient was considerably changed for the better.

The methods hitherto employed for surgical treatment of inversio uteri are twofold. One of them attempts reduction by reinverting that portion of the uterus which was the first to protrude. It consists in dimpling the uterine fundus, and its application is restricted to the treatment of recent cases, and to those exceptional cases of chronic inversion where the os uteri is in a state of relaxation. The longest case on record that had been successfully treated in this manner, is the one reported by Barrier, where inversion had existed for fifteen months. With regard to the other method, it may be said that it justly claims the preference over the one just mentioned for the treatment of the chronic form of the displacement in question. Its object is to reduce first that portion which was the last to be inverted; it acts very much in the same way as the operation for strangulated hernia. It is generally called the French method, inasmuch as Armand, Puzos, and Leroux were its first advocates. Dr. White's and Tyler Smith's manipulations are but a modification of the original plan as laid down by the above-named French physicians.

If we consider for a moment the object which we have in view whenever we intend to remedy a case of inversion of the uterus, we find that the mechanical process, whatsoever its nature may be, must tend to solve the problem of pushing a longer ring of about two inches diameter, through one of a diameter of half an inch, and less. The size and location of the larger of the two are represented by the intratubal diameter of the uterus, while the smaller one corresponds with the os uteri or rather the narrowest circumference of the cervical canal, which surrounds the intra-uterine portion of the inverted uterus. The object under consideration is accomplished whenever those two methods are applied, simply by effecting a gradual dilatation of the stricture above; the inverted portion is made to act as a wedge, either directly by choosing the French method, or indirectly by dimpling the fundus.

Now, this modus operandi would be unobjectionable, if the narrow inclosure through which the body of the uterus has to be passed, could always be forced upon. But this is not the case. The full strength of my arm proved insufficient, in the instance just related, to accomplish this object. Others have gone through the same experience, for we have quite a number of similar observations recorded in the medical journals of the last few years—a number of unsuccessful operations, performed by some of our most skilful and accomplished obstetricians. I therefore proceeded on quite a different plan. Instead of dilating the upper ring, it was my object to change the form and position of the lower one. To the circular intratubal disc was imparted an oblong form, the long diameter of which formed an acute angle with the horizontal axis of the uterus. Thus altered in shape, the lower portion of the body of the uterus was conducted through the narrow cervix, and instead of acting as a wedge upon the os uteri, the constricted portion itself sufficiently compressed the several sections of the uterine cavity, during their passage through the latter, so that the entire organ could be replaced to its normal position without the slightest difficulty. The great advantage of this method over those generally applied consists in the fact, that it does away entirely with the principal and only obstacle to the easy accomplishment of the operation—namely, the constriction of the os uteri; because the uterine tumor is thus so much reduced in size and brought under so favorable conditions, that only a very small portion at a time is pushed through the os. I will further mention that my method imitates the original process of inversion much more closely than any other manœuvre hitherto employed. Dr. Oldham, I think, was the first to call our attention to the fact, that it was not at the fundus proper that inversion commenced, but rather at one or the other of its cornua—that lateral portion of it, which receives the ostium uterinum of the Fallopian tube; an explanation which has found numerous advocates among our latest obstetrical authors. In reinverting the uterus, after the plan which I have just described, the first part that enters the pelvic cavity is the right horn of the fundus, thus following step by step the manner in which inversion is accomplished by nature. Up to the present time, I have only this one instance in which the new method could be tested. Considering, however, that the displacement had existed for thirteen years, and that three attempts at reduction had failed to succeed, I believe that I am right in asserting that my operation had stood a severe test. It is well known to every one of us that inversion of the uterus is one of the rarest accidents we are called upon to treat among the several chronic diseases of the female sexual organs, for reasons too obvious to mention on this occasion. If, however, any of the members of this illustrious body should happen to meet with a case of chronic inversion of the womb, I would ask him to give this modus operandi a trial, in order more fully to establish its true value.

Dr. John Stearns, Jr., of this city, and Mr. W. H. Mitchell, medical student, in answer to a summons from the Sanitary Commission, have gone to St. Louis for active service on board Gen. Halleck's floating hospital.—*Boston Journal.*

A meeting of the surgeons of the hospitals of New York and Brooklyn was held at the New York Hospital to make arrangements for the proper medical care of the wounded who arrive here.

DISLOCATION OF THE FEMUR INTO THE ISCHIATIC NOTCH.

REDUCTION BY MANIPULATION; DEATH FROM RUPTURE OF THE BLADDER; DISSECTION OF THE HIP.*

By JOSEPH C. HUTCHISON, M.D.,

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The chief interest of the following case depends upon the fact that an opportunity was presented for making a dissection of the parts injured by a dislocation of the femur backwards, after it had been reduced by manipulation.

Owen McLaughlin, a laborer, 40 years of age, while engaged in shovelling coal, was struck over the lower portion of the back, while in a stooping position, by the bucket of an elevator which fell from a considerable height, crushing him to the ground, or as he expressed it, "as far as he could go." He entered the Brooklyn City Hospital half an hour after the accident, while I was making my daily visit to the wards, with a dislocation of the right femur into the ischiatic notch. The limb was flexed upon the pelvis, adducted and rotated inwards, the great toe resting against the ball of the toe of the opposite side; it was shortened one inch. On elevating and adducting it the head of the bone could be felt on the ischiatic notch, the patient being very thin. The trochanter major of the right side was three-fourths of an inch nearer the anterior superior spinous process of the ilium than the left, and the lumbar portion of the spinal column presented the arched form described by Mr. Syme as characteristic of dislocation into the ischiatic notch. This symptom, he says, is never absent, always well marked, and not met with in any other injury of the hip-joint, whether dislocation, fracture, or bruise, and cannot be made to disappear so long as the thigh is straight or in a line with the patient's trunk. On either side of the spine, on a level with the crista ilii, the parts were bruised, showing where the bucket had struck. The patient was pale, with an anxious expression and feeble pulse, which excited a suspicion that some other more serious injury had been received. The pelvis and spine were carefully examined by myself, the House Surgeons Drs. Gleason and Blasdale, and Drs. Burge, Brady, and Samuel Hart, who were present, but no fracture could be detected.

I directed free stimulation and the hot air bath, for the purpose of improving his general condition before attempting reduction, and saw him three hours subsequently. He had now reacted somewhat, and in the presence of the gentlemen before named I proceeded to reduce the dislocation by what is commonly known as Reid's method. The patient was so fully relaxed that an anæsthetic was not used. The first two efforts failed, leaving the head of the bone in the ischiatic notch; the third time, the limb being more abducted than before, the head was thrown on to the foramen ovale, and the limb presented the signs characteristic of that dislocation. By reversing the movements it was easily replaced on the ischiatic notch. It moved backwards and forwards between these two points seven or eight times with the greatest facility. The manipulations were made with care and deliberation, flexion, adduction, and abduction being varied to every possible degree, with very little pain to the patient. During these efforts at reduction the pelvis was frequently examined, from a suspicion that it might have been fractured by the blow which produced the dislocation. I now had him etherized for the purpose of applying extension with the pulleys, and in the mean time having made the manipulations upon the skeleton, I came to the conclusion that when the head of the bone was brought opposite to the lower portion of the acetabulum it might be lifted over the margin into the socket. This expedient was adopted by lifting at the knee with my hands, and the reduction was thus at once accomplished. The same plan, I have since learned, was adopted by Prof. Hamilton in the case of John Caswell.*

On the following day, no urine having been passed since his admission, a catheter was introduced, and a small quantity of bloody urine drawn off. This symptom and the continued prostration induced me to believe that the bladder had been ruptured when the injury was received. He died on the fourth day after the accident.

Post-Mortem.—Present Profs. F. H. Hamilton and Enos, Drs. Minor, Hart, and others.

Dissection of the Joint.—On raising the gluteus maximus a considerable quantity of extravasated blood was found beneath it; that portion of the muscle situated over the tuber ischii was ruptured, so as to make a depression large enough to imbed the tuberosity. Gluteus medius and minimus uninjured; lower edge of the pyriformis, the gemelli, and the upper portion of the obturator externus lacerated; the capsular ligament lacerated through its posterior portion to one-half of its extent; round ligament torn from the depression on the head of the bone. The head was in its normal position in the acetabulum. On flexing the leg, which required considerable force owing to its rigidity, a fracture was revealed by a loud crack, which was found to extend from the upper portion of the ischiatic notch through the acetabulum. There was no displacement, and I believe the fracture was incomplete, but was made complete by the force which was used to bend the thigh. The *bladder* was ruptured at the fundus; no urine detected in the peritoneal cavity. Death caused by peritonitis.

This case is the only one that has come to my knowledge where an opportunity has occurred of dissecting the hip-joint in a recent dislocation backwards, *when the head of the bone had been restored to the acetabulum before death.* The pathological condition of the joint in this case corresponds with what has been observed in the few recorded cases where dissections have been made after this accident. But it would seem probable that the injury to the soft parts here must have been increased by carrying the head of the bone repeatedly backwards and forwards between the ischiatic notch and foramen ovale.

If the pulleys had been applied, as was my intention when I directed the patient to be etherized, the fractured pelvic bones would have been torn asunder, and death must have resulted from this cause, even if the bladder had not been ruptured. For this reason, therefore, the above case forcibly illustrates the value of Reid's method of reducing dislocations of the femur, to say nothing of its availability and comparative simplicity.

* Read before the Med. Soc. of the State of New York, Feb. 1862.

DIPHTHERIA IN THE COUNTRY.

By J. H. GUILD, M.D.,

OF RUPERT, VERMONT.

Having recently, in this section, passed through an epidemic of diphtheria of considerable magnitude and severity, I have been constrained, for two principal reasons, to give to the profession the results of some observations upon the disease and its treatment.

In the first place, although much has been said and written upon the subject, until it has become in all probability "a drug in the market," yet it must be remembered that it is now prevailing extensively throughout the country, exciting the same interest among the profession, and the same alarm throughout the community, that it did in New York two years ago. Again it has been stated by high authority† that the disease presents a different type in the country from what it does in the city—the inflammation being of a much higher grade, requiring the prompt use of antiphlogistics before commencing a tonic and stimulant treatment.

On referring to my notes I find a record of sixty-five

* Hamilton on Dislocations and Fractures, p. 687.

† See article of Prof. Woodward in vol. ii. of Am. Medical Times, p. 15.

cases occurring under my own supervision, and six cases to which I have been called in consultation. These were all well marked cases of diphtheria—cases in which there was a diphtheritic deposit of greater or less extent. Cases of augina, tonsillitis with superficial ulcerations scattered over the tonsils, and pseudomembranous stomatitis (muguet)—all of which are so often confounded with diphtheria by the superficial observer—although numerous, were rigidly excluded, and the peculiar diphtheritic deposit made the exclusive test. Of the sixty-five cases seen in practice sixty-four recovered, and one died. Of the six cases seen in consultation five died, and one recovered.

In nearly all of the cases the febrile stage was strongly marked. The pulse ranged from 130 to 160; the cervical glands often enormously swollen and excessively tender to pressure; breath fœtid; incessant expectoration of thick, tenacious, semi-transparent mucus; frequently marked cerebral disturbance, and invariably intense cephalagia. The diphtheritic deposit in every case enveloped the tonsils, frequently extending to the pharynx, involving the nares, and occasionally appearing upon the lips, tongue, and interior of the cheek.

Finding the grade of inflammation apparently so much higher than I had been accustomed to see it in New York, the first two cases, through the advice of the consulting physician, were treated for twelve hours with calomel and ipecac in small doses. This was followed by a mild cathartic, and afterwards sulph. quinine in tonic doses with stimulants, potassæ chloras, tinct. ferri chloridi, good nourishing diet, etc., etc. They both eventually recovered after a protracted illness of over three weeks' duration followed by diphtheritic paralysis of the velum pendulum palati, partial amaurosis, and general debility, continuing for several months, and yielding only to galvanism and tonics. At the same time I was called in consultation in a moribund case which had been subjected to the same treatment.

Losing confidence in antiphlogistics the third case was placed under the plan of treatment which I had seen prove so eminently successful with Prof. A. Jacobi, and which he has so ably laid before the profession in the first volume of the Medical Times.

This third case was a boy of eleven years of age. When called to see him there was a thick diphtheritic deposit completely enveloping the swollen tonsils, and crowding the uvula forward; pulse 140; face flushed almost purple; skin hot and dry, with marked cerebral disturbance, and great adenitis. Eight grains of quinia sulph. were immediately given, followed by three grains every three hours. Brandy a teaspoonful every hour. A saturated solution of potassæ chloras, acidulated with hydrochloric acid, in tablespoonful doses every hour. With each dose of brandy was mixed either sweet cream, eggs, or beef-tea. To these were added insufflations of alum and tannic acid equal parts mixed, every four hours, and externally hot fomentations with flannel cloths to the swollen glands, as hot as could be borne by the patient, and changed every five minutes. In a little less than two hours the fever declined, the pulse dropped to 120, the mind became clear, cephalalgia abated, and a profuse perspiration broke out over the whole body, continuing for several hours. There was no exacerbation of the fever, the alarming symptoms rapidly abated, and, on the fourth day, the diphtheritic exudation came off in large flakes one-fourth of an inch in thickness, leaving a healthy surface underneath, followed by no secondary deposit.

The remaining sixty-four cases, with one exception, were treated in a similar manner. If seen during the febrile stage quinine was given in large doses of from five to eight grains every six or twelve hours, for two or three days, according to the age and severity of the case. A rapid and permanent remission of the fever was the invariable result. It was then given in smaller doses of from two to three grains every three or four hours, until the diphtheritic deposit had entirely disappeared. The single exception to this plan of treatment, and the only one which proved fatal, commenced with rather more than the average mildness. It was seen during the febrile stage (pulse 120), but through some officious interference the directions were not followed. Quinine was given in small doses, and the alcoholic stimulant entirely omitted for twelve hours. In that period the pulse advanced to 150, accompanied with an immense augmentation of the diphtheritic deposit. The child was then placed upon the same plan of treatment which had proved so successful in the previous cases, but, unfortunately, although there was some slight amendment, the lost ground was never regained, and the patient succumbed on the fifth day to an extension of the exudation into the larynx and trachea.

Of the six cases seen in consultation three had been previously treated with purgative doses of calomel and ipecac, followed by tonics and stimulants, two had been mistaken for mild tonsillitis by the attending physician, who had never before seen a case of diphtheria, and treated accordingly. They all died. The remaining one was seen early, and the plan of treatment adopted which had proved so successful with me, and the child recovered.

From a careful examination of the foregoing cases, and a comparison of them with numerous cases in the adjoining towns which have terminated fatally under antiphlogistic treatment, I am led to the following conclusions:—That calomel in the treatment of diphtheria is unnecessary at least, if not positively detrimental. That quinine is invaluable, and, to have its full effect in the febrile stage, should be given in doses of from five to ten grains twice a day. A rapid diminution of the fever invariably follows, with no exacerbation the ensuing day. In those passive cases without febrile reaction, and which generally prove the most dangerous, I have found a better effect from it given oftener and in smaller doses, but never less than from ten to twenty grains daily. The albuminuria, which commences generally from the fourth to the eighth day, and so often proves fatal, can be, as first stated by Prof. Jacobi, effectually controlled by the effect of tannic acid, which, at the same time, produces a fine local effect upon the diphtheritic deposit. I attribute to its free use the recovery of at least twenty of the cases above reported. One, a child of two years of age, had diphtheria for five days when I saw it. There had been urodialysis for the last twenty-four hours, and the child was then suffering from uræmic convulsions. The hot bath gave temporary relief, and was followed by three grain doses of tannic acid every four hours. A restoration of the suspended secretion within twenty-four hours was the result, and the patient recovered. The local use of all caustics, and especially the argent nit., is of doubtful utility, from the difficulty of applying it to the seat of the disease, owing to the œdema of the tonsils and uvula, and the protection afforded to the hyperæmic tissues by the diphtheritic exudation. Insufflations of alum, as recommended by Trousseau, combined with tannic acid, were alone relied upon for that purpose. Again, an external application of flannel cloths, wrung out in hot water, as hot as can be borne by the patient, and changed every five minutes, will subdue the cervical adenitis quicker and more effectually than any other external application. They are very soothing and grateful to the patient, the writer having repeatedly seen little children, after two or three applications, importuning the nurse to change the cloths more frequently. That alcoholic stimulants are imperatively demanded from the very outset of the disease, both for their stimulating effect and their action upon the skin. They should be given in small quantities frequently repeated. In those passive cases without marked febrile disturbance the quantity should be increased. That potassæ chloras, as usually administered in the country, is given in too small a quantity, and should be administered to the amount of from one to two drachms daily to obtain its specific effect; and that its combination with hydrochloric acid will usually be well borne, and prove of great benefit, when the tinct. ferri chloridi is inadmissible from the irritation it produces. Above all things the most nourishing diet from the very commencement is absolutely required. Sweet cream, or eggs,

should be mixed with the alcoholic stimulant, strong beef-tea, oysters, chicken broth, etc., administered freely. The wishes of the patient are to be no criterion to the nurse in the article of diet. From the difficulty of deglutition the patient will generally object to food as well as medicine. In such cases liquid food in liberal quantity, and that of the most nourishing kind, must be insisted upon. Through its influence alone I have seen patients rally and finally recover, after the friends had given up the case, and even a *mother's* faith and love had failed to find a ray of hope.

EPIDEMIC PUERPERAL FEVER IN BELLEVUE HOSPITAL.

By FRANCIS R. LYMAN, M.D.,
HOUSE PHYSICIAN.

PERHAPS there is nothing in medicine more clearly proven than the fact, that puerperal women collected in great numbers in the wards of hospitals are liable to epidemics of child-bed fever. Again, it has been noticed that these epidemics recur at certain seasons of the year. For instance, in examining the records of Bellevue Hospital, from 1847 to 1862 inclusive, such an epidemic has been found to have occurred every March. During the existence of these epidemics, the depressing influence of the zymotic cause has been found to affect the tone of all the patients; and their liability to mammary abscesses, and all the various inflammations of the puerperal state, has been greatly increased.

It is for the purpose merely of recording one month's observations in the lying-in wards, in regard to the latter point, that this short communication is written. At the first of March, 1862, there were thirty-five patients in the lying-in ward to forty-three beds. One of the patients was suffering from an attack of metro-peritonitis (puerperal). From the first to the tenth there were seven women delivered. Of them, two were transferred to the medical wards, one laboring under a phlebitis affecting the veins of the left leg, associated with metro-peritonitis; the others having an ovaritis. Of the remaining five, none were excepted from having a chill; in some cases repeated with all the symptoms of approaching puerperal fever.

Morphine was administered, in some instances very freely, to control the inflammatory tendency, and the patients were all placed upon quinine with nourishing diet. Quinine was given to every patient who manifested the least unfavorable symptom, and they were very few who did not require it.

The wards were thinned of their patients by transfers and discharges, and those which held the suspicious cases were thoroughly ventilated and cleaned, the beds taken out and replaced by fresh ones. From that date (the 12th), the influence of the poison seemed to have been destroyed. The patients affected continued to improve, and are now all convalescing.

But the most marked result wrought by these sanitary changes, was in the cases of mammitis. In the convalescent and lying-in wards on the 12th March were six cases of simple phlegmons of the breast, supra-glandular inflammations. These patients were all placed upon quinine, ale, and good diet, by order of Dr. Barker, with the ordinary local applications, ext. belladonnæ, etc., etc. Only two of the cases went on to suppuration, and the abscesses were both opened on the 28th March. A local phlebitis was present in two cases, both of which did well on the treatment indicated above. The patients continued to improve under the tonic plan of treatment, and by the first of April there was no longer any sign of puerperal fever, and there were but three cases of mammary abscess, one of these having come in from the street. The patient with phlebitis and metro-peritonitis died, and the autopsy showed the usual lesions.

DRS. WM. DETMOLD, Thomas M. Markoe, and Chas. D Smith, of this city, of the Volunteer Corps Surgeons from this State, have been ordered to Fortress Monroe.

Reports of Societies.

NEW YORK ACADEMY OF MEDICINE.

STATED MEETING, March 5, 1862.

DR. JAMES ANDERSON, PRESIDENT, IN THE CHAIR.

DISCUSSION OF DR. NOEGGERATH'S PAPER ON INVERSION OF THE UTERUS.*

DR. B. FORDYCE BARKER said:—I have occupied lately so much of the time of the Academy in discussing another subject, that I feel some hesitation in speaking on this, but as the paper we have just listened to is one of great value, and one in which any of us may be called to feel a personal interest, I will take the liberty of alluding to some practical points connected with it. Although inversion of the uterus is a very rare accident, not occurring once among one hundred and forty thousand labors in the Dublin Lying-in Hospital, and in the London Maternity Charity, yet it is liable to occur to any one. In the *Trans Med. Soc. of N. Y.*, Dr. Bissell, of Utica, reports three cases which he met with. I have seen five cases, the prominent cases of which I will presently allude to. Dr. Williams, of Manhattanville, informed me that he had seen four. The first question which arises is—What is the cause of this accident? This is a practical question, which may come home to any of us. Two or three years since, a case of great medico-legal interest was tried at Chicago, based on this question, involving a sum of $20,000. Probably, most of the leading obstetricians of the country were consulted by the counsel of one or the other party, as to the point whether inversion ever occurred, except from improper traction of the cord, or some other neglect or malpractice of the midwife or accoucheur. Undoubtedly, a great variety of opinion was given; and in stating my own convictions, I think I but express the general sentiment of the profession, which has resulted from a careful study and analysis of the accumulated experience upon the subject, viz. that it does in a very large number of cases occur spontaneously. I will go further and say, that it is doubtful whether it ever arises from traction of the cord. Physicians have been repeatedly unjustly accused of causing this accident by improper management of the case. In three of the cases I have seen, this certainly could not have been the fact. I will detail three cases somewhat minutely, for the purpose of illustrating certain points which I shall presently speak of. The first case I saw some sixteen years since, and the inversion had then existed for three years. It was in this case supposed to be due to traction of the cord, as the history given was that the physician who attended her was intoxicated, and pulled very strongly upon something, asserting, after her delivery, that another child remained behind. You know, Mr. President, that at that date there were but two alternatives in cases of chronic inversion of the uterus—either to submit the patient to the danger and shock of extirpation of the uterus, or to leave her in a broken-down miserable condition, probably to die sooner or later from the exhaustion resulting from the accident. In my case I proposed the former as offering a chance, but I was obliged to say that also there was a strong probability that death might result from the operation, and the patient and her husband decided not to submit to it. Some four years later I heard that she died from exhaustion and dropsy.

The second case occurred at West Farms, in this State, in 1852. I had engaged to attend the patient, a primipara, at the time of her confinement. But her labor came on unexpectedly, and was very rapid. Her brother-in-law, a physician from St. Louis, was visiting her at that time. The child was still-born, and the attention of the physician was occupied in measures directed for the resuscitation of the child (the cord had been cut, and the child removed

* See page 230.

from the bed), when the nurse exclaimed, "Mrs. —— has fainted," and her appearance was such that he at first supposed her to be dead. On examination he found that profuse bleeding had occurred, and that a mass, which he found to be the inverted uterus with the placenta attached, was protruding from the vulva. He pushed it back into the vagina, and the hæmorrhage ceased. Stimulants were given freely, and I was sent for. It was twelve hours after the accident that I saw her, and she had then rallied from the collapse. I peeled off the placenta with a good deal of difficulty, and finally, having brought the patient under the influence of chloroform, I succeeded in repositing the uterus, and she made a good recovery. In this case I have the testimony of the physician, nurse, and patient, that there was no traction on the cord, which was twenty-six inches in length, and not wound around the neck of the child. Before alluding to the other cases which I have seen, I will remark on one or two points referred to by the author of the paper that we have listened to this evening. At a meeting of the State Medical Society, some three or four years since, I had a conversation on this subject with Dr. Quackenbush, Professor of Obstetrics in the Albany Medical College, and I was so much interested in his, to me, novel views, that I moved the appointment of Dr. Q., to read a paper on the subject at the next meeting of the Society. In this paper, which has been published in the *Trans.* of the Society, Prof. Quackenbush has failed to express his views with the same clearness and force as he did to me in private conversation. In brief, his views were, that inversion of the uterus rarely commenced by a dimpling in of the fundus, but at the cervical portion of the body of the uterus, just at the junction of the body with the neck; that is, in other words, at the os internum, and that this organ is gradually inverted from this point upwards to the fundus. Now, if we reflect that the neck of the uterus and the body of the uterus are anatomically and physiologically two distinct organs; that during gestation the whole tissue of the cervix becomes softened, a softening entirely distinct from any such change in the muscular walls of the body of the uturus; and that this softening of the cervix remains for some time after parturition, when ordinarily the body is firmly contracted, I think that it will be seen that this opinion rests upon a sound physiological basis. I think this will explain those cases where the inversion has apparently gradually been developed some days after parturition, and I do not see how they are to be explained in any other way. At any rate, my own experience has convinced me that the organ can be reposited by gradually reinverting it at the cervix uteri, when it cannot be done by reinverting at the fundus. In illustration of this fact I will mention a case that I saw in Brooklyn in consultation with Dr. Byrne and Dr. Dudley, where it was impossible that traction of the cord or any improper treatment could have been the cause. I saw her the eighth or ninth day after her confinement. The inversion was developed four days after delivery. She was brought under chloroform, and I found it utterly impossible to reposit the organ by any pressure to reinvert the fundus. But, finally, by strongly compressing the body at this junction of the cervix, and pressing upwards, I succeeded in restoring the organ, and I have learned from Dr. Byrne that the patient perfectly recovered. Another case I saw at Manhattanville, a patient of Dr. Williams, after her fifth confinement. The first stage of the labor had been very tedious, lasting some forty-eight hours, not severe, but the pains were just sufficient to deprive her of sleep and rest. Dr. Williams left her for a half hour to visit another patient in an adjoining house, the cervix at this time being not fully dilated. On his return he found the child in the bed just delivered, the woman flooding profusely, and the uterus inverted with the placenta attached. He separated the placenta, and attempted to reposit the organ, but only succeeded in pushing it back into the vagina. The hæmorrhage ceased, but returned again the third day afterwards. Dr. Williams made many attempts to reposit the uterus, but they were unsuccessful. I saw her on the fourth day after the accident; she was then so exceedingly prostrated by the repeated and profuse hæmorrhages that we did not dare to give her chloroform, but we gave her instead a grain of morphine. In this case I also endeavored, unsuccessfully, to restore the organ by dimpling in the fundus. I eventually succeeded by a similar procedure as in the former case. I must say, however, that it was the most fatiguing and difficult obstetric operation that I ever performed. This patient, also, perfectly recovered. In conclusion, I will say that this case, which we have listened to in the very interesting and valuable paper of Dr. Noeggerath, adds another proof to the cases of Dr. Smith, of London, and Prof. White, of Buffalo, in one of which the inversion had existed twelve and the other thirteen years, that the resources of art may prove successful in restoring the organ under those circumstances, where formerly it was regarded as justifiable to subject the patient to the great danger of the operation by extirpation of the organ.

Progress of Medical Science.

PREPARED BY E. H. JANES, M. D.

STRICTURE OF THE URETHRA.

At a meeting of the Pathological Society of London, the proceedings of which are published in the *Med. Times and Gazette*, Mr. Barnard Holt exhibited a strictured urethra showing the results of forcible dilatation after death. "The patient, who was known to be suffering from severe stricture of the urethra, died in the Westminster Hospital of fever, and the opportunity was taken to introduce Mr. Holt's "stricture dilator," post-mortem, and to slit the stricture precisely as it would be done in the living body, with the view of examining the effect produced by the operation. The urethra having been carefully removed and opened, showed a longitudinal rent in the mucous membrane and sub-mucous tissue of the floor of the urethra, corresponding to the situation of the two strictures which had existed, but the vascular tissue of the corpus spongiosum was uninjured. Mr. Holt remarked that the appearance corresponded exactly to those he had always imagined, but he had not had an opportunity of ascertaining, owing to the uniformly favorable results of the operation. Mr. Henry Thompson said he had had an opportunity of closely examining the specimen, and of witnessing the performance of the operation in several cases, certainly with the best results, but he still doubted whether the stricture was really torn, and thought that it was rather the healthy tissue that gave way. Mr. Holt replied that, as the calibre of the urethra was restored in all cases, he presumed that the stricture was split, and as Mr. Thompson himself said that the stricture was commonly at the lower part of the urethra, he considered it highly satisfactory that the rents should be found in that situation in the specimen. In answer to Mr. Hutchinson Mr. Holt said that his patient had never suffered from abscess in the perineum."

SYPHILITIC MALFORMATION OF TEETH.

Mr. Barwell exhibited a cast of the teeth from a syphilitic child, upon which Mr. Hutchinson remarked that "he did not believe one tenth of the cases of malformation of the teeth which came under notice had anything whatever to do with syphilis. The malformation which was diagnostic of that disease was a special, very peculiar, and comparatively rare one. It consisted of dwarfing and notching of the central incisors of the upper set. If this condition of the pair of teeth were not present, all other deformities should count for nothing. He had met with no single case tending to shake his confidence in the value of this condition as a reliable symptom. On the contrary, all recent observations had tended to confirm it. It was, however, a con-

dition which varied in degree, and which required some practice in its appreciation. In many cases of hereditary syphilis the teeth were but little malformed, and in some they might even escape altogether. He believed that the malformation was due to inflammation of the dental structures at an early period of infantile life. If a syphilitic infant escaped an attack of stomatitis the teeth would probably escape malformation, just as if, should no inflammation of the nasal passages occur, the nose would escape the deformity, which is usually so marked in those children. He had many opportunities for seeing families of syphilitic children, and had always found the malformation of teeth most marked in the eldest, and becoming gradually less so in the younger members. He would venture to add, as a precaution, that those pecularities were never met with in the first set of teeth, since many mistakes had come to his knowledge in consequence of inattention to this fact."

AN EPIDEMIC CHECKED.

"A remarkable proof of what may be done in removing causes of disease by careful supervision and skilled medical direction, has been afforded at the Central London District School. The children at that school were, as we stated lately, suffering most extensively from defective domestic arrangements. Putting aside some minor causes of complaint, they were the subjects of an epidemic affection of the eye. Upwards of a hundred of them were so affected. Mr. Haypes Walton was called into consultation as an ophthalmologist of scientific reputation, and decided that the affection was catarrhal ophthalmia; that the dust of the court-yards, and other conditions brought under review, were not the causes of it, but that it was due to an injudicious method of ventilation. Over the head of each bed was a great hole, through which the air was constantly renewed; and thus each child was continually exposed, when lying in bed, to a direct draught of cold air. The result was almost universal catarrhal ophthalmia. These holes he advised to be stopped up, and other methods of ventilation introduced as a substitution. The result has been that ophthalmia has disappeared from the school, and so completely, that a recent committee have intimated a doubt whether it ever existed. This is just one of the instances of the useful preventive functions which medical men may be called to fill; great good would result if public institutions were more thoroughly and generally supervised in this way."—*Lancet.*

American Medical Times.

SATURDAY, APRIL 26, 1862.

HOUSEHOLD HYGIENE.

One needs but to use his eyes in a promenade along Broadway, that great artery through which courses incessantly the vast and brilliant life-current of the Metropolis of the western world, to be convinced of the great improvements which a few years have produced in the thousand things pertaining to the *Health*, as well as the luxury and comfort of mankind. The shop windows of that thoroughfare constitute a museum, of at least five miles in length, of things elegant, things curious, things wonderful, and things useful, where one may saunter for hours, and find both pleasure and profit in the most extraordinary collection of the animate and inanimate attractions that the world can produce. As a *picture gallery* it can hardly be said to have its equal. The most refined and attractive productions of the easel are there displayed with an abandon of cost, so to speak, indicative of the highest culture of the art; while the competing powers of the *sun painters* are put to their highest tension to excel in their peculiar line. There we realize the true refinements of civilization, and but for the noise of the thousands of omnibuses, carriages, carts, and vehicles of every description, which a horse-railroad would greatly alleviate, it would have no drawback as the most inviting promenade in the world.

This allusion to an apparently unprofessional subject (though in truth everything that influences the condition of mankind is worthy of professional notice) is in consequence of our attention having been attracted to the display in the shop windows of several articles bearing a direct relation to the question of human health, in connexion with what we have designated in our caption as Household Hygiene.

There are two things greatly to be desired in this relation, especially in city life, for the promotion of general and individual health. They are, 1st. Relief from the *drudgery* of household labor, and the evils flowing from unintellectual occupation and bodily fatigue; and 2d. Agreeable inducements to increased physical exercise, especially among children and adult females.

After a recent walk along this remarkable avenue we memorized together a group of objects having a direct relation to human health, and have thought them worthy a more permanent record, for the benefit of our professional readers, and through them the families under their care.

Doubtless the most remarkable of the inventions falling under this classification is the *Sewing Machine.* This has come to be so essential a part of the household that no one who can will fail to possess one of some of the numerous patterns, or "stitches," for by that they are technically distinguished. Who can calculate the extent of the blessing brought by this beautiful invention in the households of the land? Time, money, and health are all saved by it, and had Hood been born a few years later his "Song of the Shirt" had never been written, while even now his ideal of "fingers weary and worn" lives only in the memory of a few, so completely has the "machine" revolutionized that branch of human, and especially female, labor. The piano gives no more agreeable sound to our ears when we enter a patient's house, than the gentle whirr of a busy Wheeler & Wilson, a Finkle & Lyon, a Grover & Baker, a Singer, or any other of the numerous claimants to popular favor. Even the Japanese, it seems, have learned to appreciate it, and, according to Minister Harris, they will soon imitate its manufacture, from which no patent can bar them. Within three or four squares may be counted a dozen windows beautified with the indications of comfort and health, the products of this new creation of American genius.

One of the most disagreeable things we have to encounter in a dwelling, even the most elegant and well kept, is the volume of *fine dust* which continually pervades the air. Every brush of a dress against the furniture, every act of sitting, every movement of a chair, every book taken from a shelf, and every tread upon the carpet, raises a cloud more or less dense, and which, in our universally unventilated apartments, becomes in process of time increased and concentrated to a degree which is positively oppressive to the senses, and injurious to the health. Then, again, the manner of cleansing the carpets and furniture is generally

such as to aggravate the evil. Biddy, to whom this important work is usually committed, goes at it with windows closed, or at most opened on one side only, so that no breeze can get through the apartments, and having no idea of ventilation, or any fear of consumption or asthma, first whisks her broom over the carpet with her strong arms, raises an opaque fog which, having no means of escape, settles again upon everything, permeating every crevice, even through the coverings of the sofas and chairs, whence every tap of a finger will reproduce it. The sweeping being over, and the fog somewhat settled, then comes the operation of *dusting*, which is supposed to mean a removal of the offensive stuff from the apartment; but by the feather duster the evil spirit is only raised again, to be redistributed, and driven in greater quantities into the cracks and crevices of the furniture. It is a fair estimate that of this dust nine-tenths come from the woollen carpet, that item of luxury, which, while it is an evidence of a higher civilization, is equally a deteriorator of health, on account of its peculiar power of holding dust, and increasing it by its wear, to be raised by every footfall and every touch of the broom. Hence, since carpets we must have, in obedience to fashion's dictates, any invention calculated to counteract in any degree the evils alluded to, of the dust from sweeping them, we should hail as a sanitary boon. Such an one has been attempted in the form of the "Carpet Sweeper," by which it is claimed that no dust is raised, it all being thrown into a tight box as the instrument is pushed or drawn over the floor. The idea of the "Carpet Sweeper" is, therefore, entitled to a decided rank among the promoters of Household Hygiene.

Of the numerous insanitary evils incident to city life there is none greater than the restraints imposed upon bodily exercise, especially in the open air, chiefly owing to the want of opportunities. Unlike the rural districts, where all nature invites to free action of limb and lung, amid trees jocund with song of birds, or over fields of scented clover, unchecked by conventional formalities, the city presents scarcely an inducement to physical exercise, beyond a funereal promenade along the crowded marts, or a ride by carriage or horseback in a manner as carefully guarded as to propriety as if always going to church. Even the healthful parlor sport of battledore and shuttlecock, and that of the "Graces," are precluded, since the general introduction of gas chandeliers, which check the flight of the winged messengers. So also trundling the hoop, and skipping the rope, are environed with difficulties which prevent them in a great degree. The obstructions to exercise are responsible for no inconsiderable portion of the enfeebled, delicate, and hyper-nervous organizations and abbreviated lives of the upper and middle classes. Any inducement to bodily exercise, especially in open air, should therefore receive the encouragement of both physicians and the families of their patients. We hail with great satisfaction, on this account, the renewal of the popularity of the elegant exercise of *skating*, a fact chiefly due to the exertions of the Cental Park Commissioners, in preparing and keeping in order two fine skating ponds. As this is, however, available for a small fraction of the year only, we have been gratified to notice an invention for furnishing our young men and maidens with the means of skating *all the year round*. The *Thaler Floor Skates* accomplish this to perfection. Seeing in a shop window a few doors above our publication office a number of these skates for sale, we stepped in one day, and were invited into a large hall in the rear, to witness the capacity of the instrument, and we confess our surprise and pleasure at the display made by a few young experts. With this skate the "spread eagle," "locomotive," "toe and heel," "grape vine twist," and every other evolution possible with the common ice skate, may be performed with perfect safety and facility. It is one of the happiest substitutes for the old abandoned games we can conceive of, making a delightful and attractive home amusement, affording beneficial exercise and recreation for young and old. Every muscle of the frame is brought into action by this exercise, with a feeling of security against accident which is not found on the ice, so that even in winter, except for the out-door exposure, this mode of skating must, in many cases, have the preference.

We may recur to this subject at a future time, as there are other matters of interest bearing upon the important question of Household Hygiene.

THE WEEK.

We may well congratulate the medical staff of the Army, and the profession of the United States, on the passage of the Medical Reform Bill through Congress. In multitudinous ways this deplorable war is destined to renovate our military as well as civil institutions, to place them on a firmer basis, and give them that scope and effectiveness essential to the discharge of the full measure of their duties. This war found the Medical Department of our Army with almost precisely the same organization that it has had for nearly fifty years, the army during that time rarely exceeding 17,000 men. Although the Department was capable of considerable expansion, it was quite impossible, with the small force at its command, to meet the immense demand suddenly made upon its resources. We do not here allude to material aid to our Army, for its power of obtaining supplies is, we believe, unlimited; but to that personal supervision of the details of the medical affairs of the army which alone could render its power effective. The defects in the Department were brought out in bold relief by the organization of a large army, and to none were they so palpable as to the Sanitary Commission, which has, by its well directed efforts, supplied those constant and pressing wants which the Department seemed powerless to meet. To the Sanitary Commission, the country owes a debt of gratitude, not less for its persistent and finally successful effort to reform the Medical Department, than for its ceaseless activity in supplying the necessities of the soldiers. The Department is now placed on a scientific basis, not inferior to that of England and France, and from its reorganization we anticipate that efficiency which will so commend itself to the Government that no other changes will take place, other than such as will enlarge its powers of usefulness.

Briefly, the Medical Bureau has gained these points:— 1. A larger and more effective force; besides an addition to the force of the staff, it is now to have a special department of Sanitary Inspection, with a sufficient corps of officers to place our entire army under the constant sanitary surveillance of the Medical Bureau. 2. An increased rank, the Surgeon-General having now the rank of a Brigadier-General. 3. Finally, selection of the highest officers according to merit, and not the old effete system of succession by seniority, which was ever liable to place at its head a man incapacitated by age.

We are aware that there are members of the regular staff who are not altogether satisfied with these changes; but we believe no one who is conscientiously desirous of the highest degree of efficiency in the medical department will hesitate to acknowledge that, however his own status may be affected, the department itself has undergone a reorganization, which not only the exigencies of the times but modern military science requires.

Relying upon that judicious selection of officers which the PRESIDENT and SECRETARY STANTON are so well qualified and so determined to make, we confidently anticipate for the medical department of our Army a career of usefulness and efficiency unparalleled by the best foreign military medical organizations.

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WE learn through the public prints that WILLIAM A. HAMMOND, M.D., has been *selected* by the PRESIDENT as SURGEON-GENERAL of the U. S. Army under the recent reorganization of the Medical Department. The profession will hear of the confirmation of this appointment with the most sincere gratification. No man could be selected, who so happily combines in his professional relations the confidence and esteem of both the Medical Staff of the army, and the profession of the country, as DR. HAMMOND.

A native of Maryland, but long a resident of Pennsylvania, DR. HAMMOND entered the army as Assistant-Surgeon, June 29, 1849. He remained in the army until 1860, when he resigned his commission, and soon after accepted the chair of Anatomy and Physiology in the University of Maryland, Baltimore. He also became an associate editor of the Maryland *Medical Journal*. On the breaking out of the rebellion several of PROF. HAMMOND'S associates espoused the cause of the rebels, while PROF. H., true to his country, showed his active sympathy for her success in that dark hour of trial, by again entering the Regular Medical Staff.

During the first period of service on the Staff, DR. HAMMOND occupied important and most laborious positions on our frontier; and that he was an acute observer, an efficient officer, we have abundant evidences in the valuable reports which he communicated from time to time to the Medical Bureau, and which have since appeared in the Reports of that Department. His contributions to periodical medical literature were also numerous and valuable. To the profession at home and abroad DR. HAMMOND is best known by his physiological writings, which have placed him in the front rank of experimental physiologists. To our immediate readers he will be remembered as the author of a course of lectures on chancre, which appeared in the early numbers of the last volume of the MEDICAL TIMES, and which attracted much and deserved attention.

If DR. HAMMOND is now elevated to the responsible and honorable position of Head of the Medical Staff of our Army, we believe he will have the cordial sympathy and support of his professional brethren, in both civil and military life.

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WE learn that Government has selected David's Island, near New Rochelle, East River, about twenty miles from New York, as a site for Military Hospitals. The grounds are in course of preparation, and the buildings being erected will accommodate from fifteen hundred to two thousand patients. The hospitals will be in charge of E. LEE JONES, M.D., of this city, a gentleman who will bring to the discharge of his duties a large experience in hospital management.

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IN another column we have inserted the order of GEN. HUNTER, relating to the sanitary regulations of his department of the South. A more complete code of Health Laws could not well be devised. They emanated, in whole or part, we believe, from the Sanitary Commission. We deem it most fortunate for our troops who are to pass a part of the coming season in that malarious district, that they have a commanding officer who believes that disease is more to be feared than an enemy, and who acts upon the principle that prevention is better than cure.

Reviews.

COURSE OF LECTURES ON THE PHYSIOLOGY AND PATHOLOGY OF THE CENTRAL NERVOUS SYSTEM, delivered at the Royal College of Surgeons of England, in May, 1858, by E. Brown-Séquard, M.D., F.R.S. 1860. Philadelphia. J. B. Lippincott & Co.

LECTURES ON THE DIAGNOSIS AND TREATMENT OF THE PRINCIPAL FORMS OF PARALYSIS OF THE LOWER EXTREMITIES, by E. Brown-Séquard, M.D., F.R.S. 1861. Philadelphia. J. B. Lippincott & Co.

(*Continued from page* 227.)

IN the treatment of chronic myelitis the following are the means to be employed:—

1. If possible the patient should never lie on his back, but flat on the abdomen, so as to diminish by the effect of gravitation the amount of blood in the spinal cord.

2. Those means that may attract blood outside of the spinal canal should be used as often as possible. The best of them is a hot douche between 98° and 101° Fahr. to the spine. The cold shower bath, if immediately after it the spine be rubbed with a flannel; dry cupping applied daily, blisters, moxas, cauteries, etc., are also useful. These local revulsives are to be preferred when myelitis is caused by a caries or other organic affection of the cord.

Internally belladonna and ergot are the most powerful remedies to diminish the congestion of the cord. In the beginning ergot alone is given internally; belladonna being externally applied in a large plaster (four by six inches) over the painful spot of the spine. The dose of powder of ergot is gr. iij. twice a day, gradually increased until it reaches gr. vj. twice a day. If there is no marked improvement in a few weeks ½ or ¾ gr. ext. belladonna is then administered twice a day. If with these means the patient does not get better, five or six grains of iodide of potassium twice a day, are added to the preceding remedies. Iodide of potassium should be used together with ergot and belladonna from the beginning, when meningitis and myelitis accompany each other.

Sloughs of the sacrum and nates are prevented or stopped by alternate application of ice, and a warm poultice as before mentioned.

Shampooing, galvanism, the use of the flesh-brush, and a warm foot-bath every night (when there is no œdema), are the means to prevent alterations of nutrition.

Nephritis or cystitis, when occurring, should be treated energetically. The bowels must be kept open—opium and other narcotics producing constipation should be avoided; in case of sleeplessness hyoscyamus is the remedy to be preferred among those generally resorted to.

As regards dietetic rules they are the same as in reflex paraplegia.

The treatment and prognosis of paraplegia due to chronic meningitis are nearly the same as in chronic myelitis.

However, blisters ought to be the principal means in cases of meningitis, one applied every fortnight. Iodide of potassium, gr. vj. twice a day, is to be preferred to ergot and belladonna, as it is one of the most powerful agents to determine the absorption of fluids effused in the cranio-vertebral cavity, either out or in the substance of the nervous centres. It is the only known remedy that may be employed without danger in the various forms of paralysis. It has, more than mercury, the power of producing the absorption of effused fluids in the vertebral canal, and decidedly it is less depressing than mercury. It is especially useful, too, in white softening due to fatty degeneration of the blood-vessels in the spinal cord. If the effusion attending meningitis be considerable, diuretics should be used in conjunction with iodide of potassium. The prognosis of paraplegia from congestion of the spinal cord is not so unfavorable as that of myelitis or meningitis. The same directions as in these latter are to be observed in the treatment of spinal congestion.

Treatment of paraplegia due to white softening.—Iodide of potassium is the principal of the remedies that may be relied upon; five grains of it mixed with equal dose of sesqui-carbonate of ammonia in a decoction of cinchona bark, or an infusion of calumba or rhubarb. The mixture ought to be taken an hour before meals to avoid the decomposition of the iodide by the gastric juice, and the setting free of the iodine, which causes a gastric disturbance, erroneously attributed to the iodide itself. Jointly with iodide tonics may be employed. Strychnia should be of service in cases of slight paralysis, though it may prove unfavorable if the paralysis be complete, on account of the congestion easily determining a rupture of the altered blood-vessels with hæmorrhage in the spinal cord. The cold shower bath applied to the spine is an excellent means of improving nutrition of the cord; besides, the patient should lie flat on his back at night, and live upon most nutritious food, drink wine or beer in a moderate quantity, and take as much exercise in the open air as possible, without, however, exhausting his diminished power of motion. Shampooing and galvanism may be applied with profit to the paralysed limb.

No difference is to be made in the treatment of paraplegia due to hæmorrhage in the spinal cord, unless that:—1st, Three doses of iodide of potassium, instead of two (of gr. v. each), ought to be given every day; 2d, Strychnine ought not to be employed; 3d, Constipation, lying down on the back, and all other causes of congestion of the spinal cord, should be carefully avoided.

As regards the treatment of hæmorrhage in the vertebral canal:—1st, All the most active means usually employed in the various cases of visceral hæmorrhage should be at once made use of; 2d, The patient should be placed in bed on one side, and not on his back; 3d, Pounded ice should be applied, in bladders, all along the spine; 4th, If the patient survives several days, the same treatment as is above prescribed for cases of hæmorrhage in the grey matter should be employed.

We cannot finish our quotations without calling the reader's attention to the diagnosis and treatment of paraplegia due to a tumor of the spinal cord. According to the seat of the tumor there are symptoms of disease of the heart, the lungs, the walls of the chest, of the abdomen, lumbago, neuralgia, etc., depending upon the irritation of the roots of the nerves supplying these different organs. In the beginning there is local pain at the place of the tumor; the disease progressing there is frequently myelitis, and sometimes meningitis, with all their attending symptoms. When no inflammation is produced by the tumor the symptoms are very much alike to those of white softening, except that there is a local pain in the spine, and the effects of irritation of the nerves originating in the place where the tumor lies. The phenomena change according to the part injured by the tumor, being altogether the same ascribed to alterations upon the different columns or the grey matter of the spinal cord. But a very interesting symptom is the loss of the power of guiding the movements in the limbs, observed when the tumor presses upon the lower extremity of the spinal cord on its posterior surface. In this case, *so long as the patient can see them*, the movements of the limbs are possible; but as soon as he does not look at them, or in the dark, he cannot move them, and if standing is at once in danger of falling down. Such condition depends upon the alteration of some of the posterior roots of nerves, and of the posterior white and grey parts of the spinal cord, producing partial anæsthesia of the skin and muscles of the feet and legs. Epileptiform convulsion and even real epileptic fits have been observed with a tumor in the spinal cord. The cachectic condition of the patient may serve to distinguish whether the tumor is of cancerous, tubercular, syphilitic, or any other nature.

Local myelitis and meningitis in the cervical or in the upper part of the dorsal regions give rise to pretty much the same symptoms as a tumor in the spinal cord; but in meningitis so localized, it will be, however, a loss of reflex power in the lower limbs, the contrary being observed in case of a tumor. The diagnosis remains quite difficult between a tumor in the lumbar region and meningitis in this same part. However, there are more spasms in the muscles of the limbs in case of a tumor, and more in muscles of the back in case of meningitis, otherwise presenting an acute beginning and inducing a paralysis that would soon extend upwards.

The treatment of paraplegia from a tumor in the spinal cord consists:—1st, In avoiding the congestion and tendency to inflammation by the means employed with myelitis: 2d, If the tumor be syphilitic large doses of iodide of potassium shall be the principal remedy; gr. v. taken thrice a day, for at least six months. In such cases, against the pain aconite should be employed externally and internally (from v. to x. ♏ of the tincture a day) rather than belladonna. Ergot should be likely used as in other cases of tumor. In tubercular cachexia cod-liver oil will be resorted to. The diet must be nourishing, the patient ought to take exercise in the open air, and lie down in bed on one side of the body, and not on the back. His appetite and digestion ought to be carefully watched, and kept right by tonics, aperients, etc.

Although sufficient to show the value of the work, yet the cardinal points brought before the reader are far from being all those treated in the two volumes recently published by Dr. Brown-Séquard. Indeed, facts, instead of theory, shall finish with doubt in Medicine, and the illustration of this great truth strikes us on perusing the interesting lectures of the eminent physiologist; pregnant with the most positive researches, they throw an entirely new light on the obscure pathology of the nervous system. But, besides so manifold questions already investigated in such an immense and rugged field, many others equally important remain yet unsolved. Undoubtedly, new observers may enter the path now opened, achieving ere long more progress; whilst the untiring love for science and vigor of Dr. Brown-Séquard, and the exceptional opportunities to prosecute his inquiries, afforded by the appointment he holds at the head of a special hospital for nervous diseases in the largest metropolis of the world, give us also the hope of having his further observations and clinical results on a subject with which his name goes so intimately connected.

M. G. E.

Obituary.

DR. JEREMIAH BURRITT PIERCE.

Died, April 10th, Dr. Jeremiah Pierce, aged 72 years. Duty to the honored dead, justice to the profession, and the common sentiments of humanity, demand that the termination of the earthly career of this useful citizen, this ornament to

society, this able physician, and this "noblest work of God, an honest man," should not be without a becoming record.

Dr. Jeremiah Burritt Pierce was born in the city of Troy, of this State, about the year 1790. Like the great majority of boys of that day, his advantages for education were limited to English and lower mathematics. At about the age of eighteen he entered the office of the late Dr. Burritt of his native city, as apprentice and student in medicine. His natural ability, and industrious habits of study, soon made him the favorite student. After spending about two years with his preceptor, passing the frequent experiences of those days attending the practical study of anatomy in the country, often at the great risk of life and limb, he came to this city and matriculated at the College of Physicians and Surgeons, New York. With his characteristic avidity for knowledge he could not but add much to his stock, from the teeming brain of Samuel L. Mitchel, from the practical lessons of Edward Miller, and from the varied and learned teachings of Drs. Romayne, Macneven, and John Augustine Smith. After spending about a year under the teachings of these distinguished men he returned to Troy, and soon passed the required examination before the censors of the district, receiving a diploma from the State Society. He soon after located in the then western village of Skaneateles, Onondaga co., of this State. There he remained in the active and arduous practice of his profession, such as none but country physicians can appreciate, till about the year 1819, when, at the urgent request of friends, and at the prospect of growing up with a city, which it then promised to become, he was induced to remove to Lyons, Wayne co., of this State, where he has just finished his earthly labors. His life, though one of great usefulness, is thus seen to have been spent in an unknown village, in an unpretending, retired manner, away from the bustle of the world. Arduous and continual duty gave him no time to write, hence his intelligence was known only to those who came in contact with him. But his fund of practical knowledge was ample, and always ready. He was a true lover of medical science, fond of its reading, and spent every possible moment with the new and old books, and the periodicals; and thus kept himself fully up with the medical literature of the day. Nothing affo ded him more pleasure than a well-written description of a disease he was treating or had ever seen. He used to say, "I am glad some people have time to write."

Dr. Pierce was a thoroughly practical and more than usually skilful physician. He consequently enjoyed the highest respect of all who knew him as a medical man, and his counsel was much sought for at *home*, as well as at great distances. He was an active member of his county society, was sent as delegate from it to the State Society on several occasions, and twice to the National Medical Convention. The honesty which characterized every act of his life was continually manifested in his intercourse with his patients, and with his professional associates. He never practised deception upon the one, nor did he ever intentionally do aught to injure the other.

Of few can it be said, as all who knew Dr. Pierce can say of him, even those whom he may have displeased, acknowledge the kindness of his intentions, and that he was a good man. To young men in the profession he was always especially friendly, never without an encouraging word for them, constantly ready with his influence to uphold them when worthy of it, and not unfrequently with his money to aid them, as the writer has occasion to know. Many a young practitioner has been thankful to Dr. Pierce for his influence in generously and honestly shielding him against malicious and unfounded charges of mal-practice or neglect. With his combined qualities of industry, intelligence, natural kindness of heart, faithfulness, and honesty, and with his great experience, we could not look for less than a humane and reliable physician. Such in truth was Dr. Pierce. Many have made more noise in the world, but few have done so much good, as all who knew him will attest. He was an example that both old and young physicians would do well to follow. He was a model citizen, a true Christian, and a physician whose loss will be widely felt.

S. R.

New York, April 16, 1862.

Army Medical Intelligence.

GENERAL ORDER IN REFERENCE TO SANITARY PRECAUTIONS.

GENERAL ORDER—NO 5.

Headquarters Department of the South,
Hilton Head, Port Royal, S. C., April 7, 1862.

1. The Major General commanding desires to call the attention of the officers and men in this department to the paramount necessity of observing rules for the preservation of health during the warm months upon which we have now entered. There is less to be apprehended from battle than from disease, the records of all campaigns in climates such as this showing many more victims to the neglect of sanitary precautions than to the skill, endurance, or courage of the enemy. With proper care exercised, and certain simple rules of hygeine observed, the hardy soldiers of the Union, inured to toil and fortified by habits of industry, temperance, and cleanliness, have nothing to fear from the climate of the department in which it is their privilege to serve. During our war with Mexico the soldiers of New England, the Northwestern and Middle States, and the adopted citizens serving in our army, suffered far less from the diseases incident to a semi-tropical climate than the soldiers from the States embraced in this department. Though not so well accustomed to excessive heat, their physical energies had been more fully developed by habits of steady industry, and their constitutions presented greater natural obstacles to the inroads of malaria. Anxious that the men of his command may be preserved in the full enjoyment of health to the service of the Union, and that only those who can leave behind them the proud epitaph of having fallen on the battle-field in defence of their country shall fail to return to their homes and avocations on the termination of this unholy rebellion, the Major-General commanding, in conformity with the excellent advice of Surgeon George E. Cooper, United States Army, Medical Director of the Department, hereby establishes the following rules for the sanitary government of all the troops at present serving, or hereafter to serve, in Georgia, South Carolina, and Florida, and will hold all officers having the charge of camps or posts to a strict responsibility for their enforcement.

II. Care will be taken in the selection of camping grounds to avoid as much as possible the vicinity of malarious morasses or swamps: and the tents, in so far as practicable, are to be faced to the south. Each camp will be thoroughly policed twice each day, morning and evening, and all garbage or refuse matter will be collected and buried in the sinks.

III. Each tent will be screened or covered at the top and half-way down the sides with an arbor of brushwood or palm leaves, and shall be floored, whenever lumber can be procured, at an elevation of about three inches from the ground. When this cannot be done, each soldier will have a bunk raised eighteen inches from the ground on side poles, supported by forked sticks. All Quartermasters, to the extent of their ability, will furnish barrel staves to be placed across these side poles, and will issue the necessary lumber on receipt of proper requisitions.

IV. Tents will be struck at least three times each week, and every article of bedding and clothing taken out and aired, the flooring and bunks to be thoroughly cleansed before the tents are re-erected. On the days on which the tents are not struck the sides will be raised and kept raised for the purpose of ventilation; and during the nights free ventilation will be secured by having the centre seam in

rear of the tent opened for the space of two feet, and kept open by the insertion of a forked stick. An officer of each company will inspect the tents of his men nightly, except during stormy weather, to see that this important provision is carried out.

V. Sinks of the proper size, screened with brushwood or palmetto branches, shall be sunk at suitable distances on different sides of each camp, and the bottoms of these will be covered each morning with a layer of sand or clay about a foot thick. It will be the duty of the camp police to see that only the sinks on the lee side of the camp are used.

VI. Fresh meat is to be issued as often as practicable, and commanding officers, while near the seacoast or any pieces of water in which fish exist, should encourage such of their men as are off duty or not otherwise employed, to fish during the cool hours of the morning and evening, not later than nine A.M. in the morning, and not earlier than six P.M. in the evening. In a scarcity of fresh meat those troops in the most exposed and unhealthy situations are to be first served—the troops stationed in the batteries on the Savannah river, for instance; and to all troops so placed a large share of vegetables, in addition to the ordinary rations, should be sent.

VII. Vegetables, fresh or prepared, must be issued frequently to all the troops, and an extra issue of coffee furnished to the men on guard during the night, just previous to their being marched to their respective stations. The Chief Commissary of Department will see that the estimates and requisitions necessary to fulfil these requirements are forwarded to the Commissary General without delay, and will report to these head-quarters any failure of brigade or regimental commissaries to make due requisition for the supplies of the troops under their charge, in conformity with the terms of this order.

VIII. Breakfast will be ready for the men as soon as they leave their tents, which must not be until after sunrise. Except when immediately in face of the enemy, or when especially ordered by the commanding officer, reveille will not be sounded until half an hour after sunrise, by which time the sun's heat will have absorbed the miasma of the night dews. All the men will be furnished with straw hats, and will be required to bathe or wash themselves thoroughly at least twice each week, and change their underclothing once a week, or oftener if practicable. The hair and beard will be kept closely trimmed; and sentry boxes of lumber or small shade arbors of brushwood will be erected at all points where sentries are permanently stationed. All soldiers on night picket or sentry duty will be provided with india rubber ponchos.

IX. The proper cooking of provisions is a matter of great importance, more especially in this climate, but has not yet received from a majority of the officers in our volunteer service that attention which is paid to it in the regular army of the United States, and by the armies of Europe. Hereafter, an officer of each company will be detailed to superintend the cooking of provisions, taking care that all food prepared for the soldiers is sufficiently cooked, and that the meats are boiled or roasted, not fried. With a little care on this point, and the advantages both to health and comfort of good cooking explained to the men, much good may be effected.

X. All soldiers on duty in districts especially malarious, or on unavoidable fatigue duty during the hot hours of the day, should be given quinine in prophylactic doses, each dose combined with half a gill of whiskey, every night and morning. The certificates of regimental surgeons will be requisite to cover such issues.

Officers of the medical staff will see that the provisions of this order are complied with, and will promptly report any failure or neglect to the senior officers of the commands they are serving with, and to the medical director of this department. By command of

Major-General D. HUNTER.

CHAS. G. HALPINE, Assistant Adjutant General.

Medical News.

FEVER AMONG THE RICH.—Fever, fighting for each foot of ground against the preventive physicians who seek to assail its strongholds, has retreated from the haunts of the poor to the houses of the rich. An efficient body of health officers have occupied themselves in this metropolis with driving fever from the filthy purlieus of the poor; they have swept away the abominations which invited it to those favorite camping-grounds. In the city alone five thousand cesspools have been removed, and with them the cohort of zymotic fevers which dwelt in the brooding miasms of their surrounding atmosphere. The poorest neighborhoods are now well drained, and kept free from sewer gas and the like sources of disease. During the last few years the mortality from fever was so much lowered as to give signs of the manifest success with which the officers of health had fought the good fight. But fever has found a new refuge, and again deals widely its fatal strokes. The houses of the rich have not the intelligent care and supervision which by law are given to the dwellings of the poor. This defect has been much debated by the health officers, and recently at their meeting it was resolved, in discussing a paper by Mr. Lyall, pointing to this want, to obtain powers for the health officer in respect to the construction of new dwellings, in some measure correlative with those given to the district surveyor. The wealthy have left open in their houses loopholes through which fever can enter by gullies, untrapped drains, and similar defects of sewerage. The enemy has entered, and the middle and upper classes of the metropolis are now suffering from typhoid fever—the fever of filth, of sewage gas, and of tainted water. The returns of deaths from this cause, which had fallen, are now rising again. The increased mortality is not amongst the poor, for they are still in their former favorable condition in this respect. In the autumns of 1859 and 1860, when the mortality from the disease was not nearly so high as it is now, the number of fever cases attended amongst the poor by the medical officers of the city unions was from 301 to 313 in the quarter—making an aggregate of 10 per cent. of the sickness returns; but during the quarter which has just expired the number of fever cases amongst the city poor has been only 76, which is barely 3 per cent. of all the sickness. No fact can indicate more strongly the migration of fever to the houses of the upper classes. They too must call in the systematic supervision of the health officer.—*Lancet.*

A NOVEL MARRIAGE LICENCE.—M. Giordano, professor of midwifery at the University of Turin, gave this year the lecture introductory to the business of the session, and alluded principally to deformities of the pelvis in relation to marriage. So impressed is the professor with the importance of a capacious pelvis in a married woman that he proposes the following regulation: "Every woman shall be required, before signing the marriage register, to produce a certificate respecting the proper conformation of her pelvis." Another summary measure touching pelvic organs has been proposed by M. Larghi, of Vercelli: as a preventive of puerperal fever, the lining membrane of the uterus should be well brushed with a solution of nitrate of silver.—*L' Union Médicale.*

ABOUT 100,000 cinchona trees, which produce the Peruvian or Jesuit bark from which quinine is distilled, are now flourishing in the Dutch settlements in Java. A few years ago there were only a small number of these trees there, and which were reared from seeds obtained from Peru. The cinchona has also been planted in the Neilgherry hills in India with great success. Measures are about to be taken to plant the tree in Ceylon.—*Dublin Med. Press.*

DRS. S. H. TEWKSBURY of Portland, and Wm. Warren Greene, of Gray, have been selected by Gov. Washburne, of Maine, as surgeons for special service among the sick and wounded at the seat of war, and have been ordered to Fortress Monroe, to enter upon their duties.

METEOROLOGY AND NECROLOGY OF THE WEEK IN THE CITY AND COUNTY OF NEW YORK.

Abstract of the Official Report.

From the 14th day of April to the 21st day of April, 1862.

Deaths.—Men, 91; women, 98; boys, 103; girls, 93—total, 395. Adults, 189; children, 206; males, 199; females, 196; colored, 7. Infants under two years of age, 129. Children reported of native parents, 19; foreign, 142.

Among the causes of death we notice:—Apoplexy, 10; Infantile convulsions, 32; croup, 7; diphtheria, 6; scarlet fever, 21; typhus and typhoid fevers, 9; consumption, 68; small-pox, 11; dropsy of head, 13; infantile-marasmus, 12; diarrhœa and dysentery, 0; inflammation of brain, 9; of bowels, 15; of lungs, 21; bronchitis, 12; congestion of brain, 7; of lungs, 4; erysipelas, 5; whooping cough, 4; measles, 1. 216 deaths occurred from acute diseases, and 38 from violent causes. 315 were native, and 80 foreign; of whom 70 came from Ireland; 6 died in the Immigrant Institution, and 46 in the City Charities; of whom 12 were in the Bellevue Hospital.

Abstract of the Atmospherical Record of the Eastern Dispensary, kept in the Market Building, No. 57 Essex street, New York.

April.	Barometer.		Temperature.			Difference of dry and wet bulb. Thrm.		Wind.	Mean amount of cloud.	Humidity Sat'on, 1000
1862	Mean height.	Daily range.	Mean	Min.	Max.	Mean	Max.			
	In.	In.	°	°	°	°	°			
13th.	30 22	.10	48	40	56	9	13	N. to S.E.	.04	500
14th.	30 25	.05	50	40	60	5	9	N. to S.E.	4	688
15th.	30.35	.10	52	42	61	5	9	N. to S.E.	5	698
16th.	30.40	.07	55	45	63	5	9	S.E.	3	726
17th.	30.30	.10	62	47	76	6	10	S.E.	1	660
18th.	30 00	.34	70	56	83	5	8	S.E.	4	734
19th.	29.91	.20	60	50	68	9	14	W.	2	510

REMARKS.—13th, Fine day; wind fresh. 14th, Variable all day. 15th, Wind fresh during the day; cloudy P.M. 16th, Cloudy A.M.; day variable; wind mostly fresh. 17th, Cloudy A.M. 18th, Very sultry; light rain P.M. 19th, Wind fresh during the day; variable sky P.M.; Barmeter very high during the day.

MEDICAL DIARY OF THE WEEK.

Monday, April 28.
- NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Thomas, half-past 1 P.M.
- EYE INFIRMARY, 12 M.

Tuesday, April 29.
- NEW YORK HOSPITAL, Dr. Markoe, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Loomis, half-past 1 P.M.
- OPHTHALMIC HOSPITAL, Drs. Stephenson and Garrish, 1 P.M.

Wednesday, April 30.
- NEW YORK HOSPITAL, Dr. Griscom, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Sayre, Is. Hos., half-past 1 P.M.
- " " Dr. Flint, Is. Hos., 3 P.M.
- EYE INFIRMARY, 12 M.

Thursday, May 1.
- NEW YORK HOSPITAL, Dr. Halsted, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Barker, half-past 1 P.M.
- OPHTHALMIC HOSPITAL, Drs. Stephenson and Garrish, 1 P.M.

Friday, May 2.
- NEW YORK HOSPITAL, Dr. Markoe, half-past 1 P.M.
- EYE INFIRMARY, 12 M.
- BELLEVUE HOSPITAL, Dr. McCready, half-past 1 P.M.

Saturday, May 3.
- NEW YORK HOSPITAL, Dr. Griscom, half-past 1 P.M.
- BELLEVUE HOSPITAL, Dr. Wood's Clinic, 1 P.M.
- OPHTHALMIC HOSPITAL, Drs. Stephenson and Garrish, 1 P.M.

SPECIAL NOTICES.

SANITARY ASSOCIATION.—*A Stated Meeting of the N. Y. Sanitary Association will be held at 7½ o'clock P.M., Thursday, May 1st, at Room No. 19, Cooper Institute, The subject for discussion will be "The Limitation of Venereal Diseases."*

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